

What is Claimed is:

- 1 1. A method for identifying a connection between a destination local area
- 2 network (LAN) and a local LAN where said LANs are coupled by an ATM-based wide
- 3 area network (WAN), wherein each of said LANs includes a router, and wherein said
- 4 WAN includes at least two ATM switches, the method comprising the steps of:
- 5 identifying one or more ATM interfaces on each router;
- 6 retrieving and storing an IP address, a subnet mask, a city, a state, and a virtual
- 7 circuit identifier from each ATM interface, thereby identifying a list of entries;
- 8 using the IP address in conjunction with the subnet mask stored for each ATM
- 9 interface in the list to derive a destination IP address, thereby identifying a pair of
- 10 network IP addresses;
- 11 identifying a virtual circuit identifier value associated with each of the pair of
- 12 network IP addresses;
- 13 retrieving and preparing WAN configuration data so as to permit a LAN-to-WAN
- 14 correlation;
- 15 associating the city, state, and pair of virtual circuit identifier values of the ATM
- 16 interfaces on the LANs with the city, state and pair of virtual circuit identifier values on
- 17 the WAN; and
- 18 retrieving and storing the associated configuration information and components of
- 19 the WAN along with the entries of the list.

1 2. The method of claim 1, wherein identifying one or more ATM interfaces
2 on each router comprises the step of:

3 querying LAN management information including at least one of a network
4 management system database, router command, router configuration files, and router
5 management information base objects.

1 3. The method of claim 1, wherein retrieving and storing an IP address, a
2 subnet mask, a city, a state, and a virtual circuit identifier value from each ATM interface
3 comprises the step of:

4 querying LAN management information including at least one of a network
5 management system database, router command, router configuration files, and router
6 management information base objects.

1 4. The method of claim 1, further comprising the step of:
2 creating a connection components template.

1 5. The method of claim 1, wherein:
2 said pair of network IP addresses are part of the same subnet.

1 6. The method of claim 5, wherein using the IP address in conjunction with
2 the subnet mask stored for each ATM interface in the list to derive a destination IP
3 address comprises the step of:
4 matching pairs of IP addresses using their subnet addresses.

1 7. A computer program product for identifying a connection between a
2 destination local area network (LAN) and a local LAN where said LANs are coupled by
3 an ATM-based wide area network (WAN), wherein each of said LANs includes a router,
4 and wherein said WAN includes at least two ATM switches, said computer program
5 product comprising:
6 a computer usable medium having computer readable program code means
7 embodied in said medium, said computer readable program code means comprising:
8 a computer readable first program code means for causing a computer to identify
9 one or more ATM interfaces on each router;

10 a computer readable second program code means for causing a computer to
11 retrieve and store an IP address, a subnet mask, a city, a state, and a virtual circuit
12 identifier from each ATM interface, thereby identifying a list of entries;

13 a computer readable third program code means for causing a computer to use the
14 IP address in conjunction with the subnet mask stored for each ATM interface in the list
15 to derive a destination IP address, thereby identifying a pair of network IP addresses;

16 a computer readable fourth program code means for causing a computer to
17 identify the virtual circuit identifier value associated with each of the pair of network IP
18 addresses;

19 a computer readable fifth program code means for causing a computer to retrieve
20 and prepare WAN configuration data so as to permit a LAN-to-WAN correlation;

21 a computer readable sixth program code means for causing a computer to
22 associate the city, state, and pair of virtual circuit identifier values of the ATM interface
23 points on the LANs with the city, state and pair of virtual circuit identifier values on the
24 WAN; and

25 a computer readable seventh program code means for causing a computer to
26 retrieve and store the associated configuration information and components of the WAN
27 along with the entries of the list.

1 8. The computer program product of claim 7, wherein said computer readable
2 first program code means comprises:
3 a computer readable program code means for causing a computer to query LAN
4 management information including at least one of a network management system
5 database, router command, router configuration files, and router management information
6 base objects.

1 9. The computer program product of claim 7, wherein said computer readable
2 second program code means comprises:
3 a computer readable program code means for causing a computer to query LAN
4 management information including at least one of a network management system
5 database, router command, router configuration files, and router management information
6 base objects.

1 10. The computer program product of claim 7, wherein said computer readable
2 program code means further comprises:
3 a computer readable eighth program code means for causing a computer to create
4 a connection components template.

1 11. The computer program product of claim 7, wherein:
2 said pair of network IP addresses are part of the same subnet.

1 12. The computer program product of claim 11, wherein said computer
2 readable third program code means comprises:
3 a computer readable program code means for causing a computer to match pairs
4 of IP addresses using their subnet addresses.

1 13. An apparatus for mapping a connection between a destination local area
2 network (LAN) and a local LAN where said LANs are coupled by an ATM-based wide
3 area network (WAN), wherein each of said LANs includes a router, and wherein said
4 WAN includes at least two ATM switches, the apparatus comprising:
5 means for identifying one or more ATM interfaces on each router;
6 means for retrieving and storing an IP address, a subnet mask, a city, a state, and a
7 virtual circuit identifier from each ATM interface, thereby identifying a list of entries;
8 means for using the IP address in conjunction with the subnet mask stored for
9 each ATM interface in the list to derive a destination IP address, thereby identifying a
10 pair of network IP addresses;

11 means for identifying a virtual circuit identifier value associated with each of the
12 pair of network IP addresses;

13 means for retrieving and preparing WAN configuration data so as to permit a
14 LAN-to-WAN correlation;

15 means for associating the city, state, and pair of virtual circuit identifier values of
16 the ATM interfaces on the LANs with the city, state and pair of virtual circuit identifier
17 values on the WAN; and

18 means for retrieving and storing the associated configuration information and
19 components of the WAN along with the entries of the list.

1 14. The apparatus of claim 13, wherein said means for identifying one or more
2 ATM interfaces on each router comprises:

3 means for querying LAN management information including at least one of a
4 network management system database, router command, router configuration files, and
5 router management information base objects.

1 15. The apparatus of claim 13, wherein said means for retrieving and storing
2 an IP address, a subnet mask, a city, a state, and a virtual circuit identifier value from
3 each ATM interface comprises:

4 means for querying LAN management information including at least one of a
5 network management system database, router command, router configuration files, and
6 router management information base objects.

1 16. The apparatus of claim 13, further comprising:
2 means for creating a connection components template.

1 17. The apparatus of claim 13, wherein:
2 said pair of network IP addresses are part of the same subnet.

1 18. The apparatus of claim 17, wherein said means for using the IP address in
2 conjunction with the subnet mask stored for each ATM interface in the list to derive a
3 destination IP address comprises:
4 means for matching pairs of IP addresses using their subnet addresses.